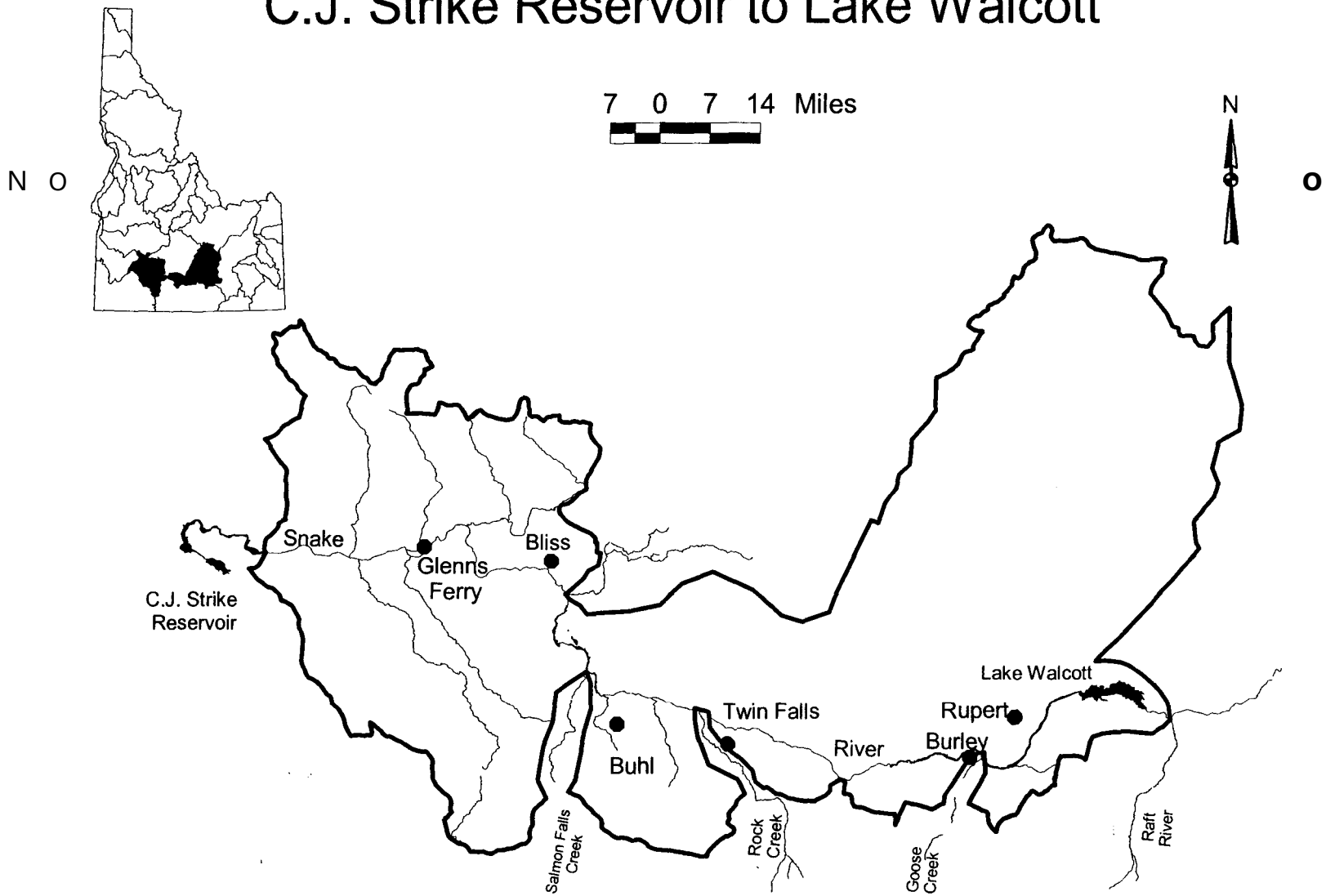
Snake River Drainage

C.J. Strike Reservoir to Lake Walcott



22. MAIN SNAKE RIVER - C.J. STRIKE RESERVOIR TO LAKE WALCOTT

A. Overview

Trout habitat in the main Snake River is currently poor to fair throughout most of the free-flowing reaches between C.J. Strike Reservoir and Lake Walcott. It is best in the section between Shoshone Falls and King Hill, where large amounts of spring flow are discharged into the Snake River from the Snake River Plain aquifer. An approximate average discharge of 5,900 cfs (4.3 million acre-feet/year) flows from these springs along the north bank of the Snake River. These springs include 11 of the 65 springs in the United States, which have an average discharge exceeding 100 cfs. Water quality from these springs has been excellent but continuing development of the springs by commercial fish farmers and increasing levels of nutrients in the ground water is lowering water quality in the springs and river. Development of springs has reduced available trout spawning habitat. Additional water quality problems are occurring in the river and tributaries from excessive nutrients and sediments from agricultural and municipal discharges in the surface waters. Due to these discharges, low dissolved oxygen levels at night has been a problem along with excessive vegetation along portions of the river.

Trophy size trout are caught in portions of the Snake River, such as the areas below Minidoka Dam and Upper Salmon Falls Dam. Species of trout present are rainbow trout, brown trout, cutthroat trout, and rainbow trout x cutthroat trout hybrids. The cutthroat trout and rainbow trout x cutthroat trout hybrids are found mainly in the area between Milner Dam and Twin Falls Dam, an area seriously impacted by low flows during the irrigation season. Many of these hybrid trout attain large sizes, some reaching weights of over six pounds. Vinyard Creek, an aquifer spring entering the Snake River on the north side just above Twin Falls, is the major spawning area for cutthroat trout and the rainbow trout x cutthroat trout hybrid trout.

Many of the minor tributary streams entering the Snake River also contain good trout habitat and support good populations of wild trout, primarily rainbow trout. Some of the streams, especially the springs, are utilized for spawning by trout from the Snake River.

The main Snake River contains seven reservoirs which are suitable in varying degrees for trout; Bliss, Lower and Upper Salmon Falls, Shoshone Falls, Twin Falls, Milner and Lake Walcott. The trout fishery in Lower Salmon Falls Reservoir can be the best of the six reservoirs with the fishery being supported by releases of hatchery rainbow trout. During extreme high or low water years in the Snake River, flushing or hydroelectric load following, may reduce reservoir productivity and cause stocked fish to emigrate from Snake River reservoirs. During recent years, loss of aquatic vegetation from unknown reasons in Lower Salmon Falls Reservoir has severely reduced its potential for trout habitat. Many of the smaller lakes, ponds and reservoirs close to the Snake River are also highly suitable for rainbow trout.

White sturgeon are found in varying numbers throughout the Snake River from Shoshone Falls downstream. The best sturgeon population, however, occurs in the free flowing river section between Bliss Dam and C.J. Strike Reservoir, where they are successfully reproducing. However, reproduction may be declining in low water years. Reproduction may also be negatively affected by water flow management in the Snake River. Recent studies have shown sturgeon grow at a rapid rate in this area with some reaching lengths of over nine feet. Angler interest in this species is high and they are regarded as exceptionally desirable, even though the fishery is on a catch-and-release basis. Sturgeon culture has allowed the stocking of hatchery origin fish into the river, however there needs to be additional evaluation of the previously released fish due to concerns about effects on wild population genetics and competition.

Areas with warmwater fisheries are fairly numerous in the main Snake River and minor tributary drainages, but a great demand exists for more waters of this type in the populated portions of the drainage. Major warmwater species present in the Snake River and surrounding waters are largemouth and smallmouth bass, bluegill, brown bullhead, channel catfish and yellow perch. Channel catfish were stocked almost annually in the main Snake River in this area between 1965 and 1972. Periodic releases have been made in the Snake River and nearby waters since 1972 and self-sustaining populations have become established between Bliss Dam and C.J. Strike Reservoir. Bullhead angling is excellent in Wilson Lake where the fish reach sizes over two pounds. Good populations of largemouth and smallmouth bass are found in impoundments on the Snake River, and some waters in the Hagerman area produce good angling for large bluegill.

Major existing hydropower facilities on the Snake River are in the process of being relicensed. Mitigation for these facilities needs to be adequately addressed to provide the opportunities to improve habitat and river conditions for fish in the river.

The Snake River has the greatest potential for increasing angler opportunity of any major water in the southern portion of Idaho. Daily load following, lack of adequate instream flows, especially during irrigation season, apparently deteriorating water quality, and loss of spawning areas appear to be the factors most significantly affecting fish populations in the Snake River. Should water become available, every effort should be made to improve summer flows.

B. Objectives and Programs

1. Objective: Improve water quality in the Snake River for fish spawning and rearing and for recreational uses.

   Program: Work with regulatory and land management agencies, irrigation companies, municipalities, Watershed Advisory Groups (WAG's), and private owners to improve water quality in the Snake River.

   Program: Assist in the development of wetlands at the ends of irrigation drains and other nutrient rich water sources to filter sediments and nutrients from irrigation returns. Identify 319 grant funding opportunities and provide technical assistance to WAG.

2. Objective: Improve water quantity in the Snake River for fish spawning and rearing and for recreational uses.

   Program: Work with regulatory agencies, Bureau of Reclamation and irrigation companies to improve water management in the Snake River to improve flows during white sturgeon spawning periods.

Program: Work with Idaho Power Company and FERC to reduce or eliminate load following practices at Lower Salmon Falls Dam to improve fish rearing habitat down river to CJ Strike Reservoir.

Program: Work with Idaho Dept. of Water Resources to define conditions under which water can be diverted for aquifer recharge while not impacting fish or riparian resources.

3. Objective: Increase connectivity between isolated white sturgeon populations to increase viability of wild populations.

   Program: Work with Idaho Power Company and FERC to see if upstream passage facilities or sturgeon transporting operations are feasible to reestablish connectivity between isolated white sturgeon populations.

4. Objective: Return the trout fishery in Lower Salmon Falls Reservoir to the excellent fishery it has been in the past.

   Program: Attempt to determine the reasons for the decline of this fishery and build the fishery back to its former level. Determine if the lack of fishery is water quality, water quantity or fish stocking related and manage accordingly.

5. Objective: Maintain existing and recover lost spring habitat along the Snake River in the Snake River aquifer area for Shoshone sculpin and redband trout spawning and rearing habitat.

   Program: Continue strong efforts to preserve undeveloped natural springs with significant fishery values.

   Program: Work with Idaho Power Company and other private developers to reestablish natural spring habitat at Banbury Springs and other sites at the opportunity arises.

   Program: Work with Idaho Department of Parks and Recreation to develop a management plan for Box Canyon to maintain native habitat and fish species.

6. Objective: Increase opportunity for warmwater and coldwater fishing in the Magic Valley area to meet increased demand.

   Program: Determine the feasibility of modifying water management at Hagerman WMA to improve warmwater fisheries in the Anderson Ponds if compatible with waterfowl management.

   Program: Attempt to acquire access on existing private ponds or develop new ponds for warmwater fisheries in the area.

   Program: Evaluate selective common carp rotenone pellets to see if they are an economical and biological efficient tool to control carp in Big Sand Dunes Pond

and other ponds in Idaho.

Program: Acquire and develop fishing opportunities at the Clear Lakes Grade ponds.

7. Objective: Improve fishing in ponds along the Interstate in the Burley/Rupert area.

Program: Work with local officials and the public to develop a management plan to reduce common carp in the ponds.

Program: Work with USFWS on controlling or managing fish eating birds at the ponds or develop a species or trout size stocking program to provide a fishery under current conditions.

Drainage: SNAKE RIVER - C.J. STRIKE RESERVOIR TO LAKE WALCOTT

Water	Miles/acre	Fishery			Management Direction
		Type	Species Present	Management	
Snake River from Loveridge Bridge to Bliss Dam	47.3/	Mixed	Sturgeon	Conservation	Maintain no harvest regulation on sturgeon unless studies indicate oth Do not stock sturgeon during this planning period while evaluating pre releases. Emphasize high quality sturgeon fishery and habitat protect Maintain suitable coldwater temperatures during sturgeon spawning a larval rearing. Investigate potential of fingerling stocking to improve trout fishery if da flows are stabilized. Determine if stocking is necessary to maintain fis catfish. Improve angler access.
			Rainbow trout Brown trout Mountain whitefish Channel catfish Smallmouth bass Largemouth bass Yellow perch	General	
Bliss Reservoir	5/250	Mixed	Rainbow trout Largemouth bass Smallmouth bass Channel catfish Sturgeon	General	Investigate feasibility of other warmwater species in the reservoir.
Backwaters of Bliss Pool to Lower Salmon Falls Dam	8/	Mixed	Sturgeon	Conservation	Maintain no harvest regulation on sturgeon. Evaluate sturgeon stocke experimental program to improve sturgeon fishing opportunity. Do not sturgeon during this planning period while evaluating previous release Continue to investigate potential of stocking fingerlings or subcatchabl to improve trout fishing. Consider experimenting with other strains or of trout. Evaluate potential for quality or trophy fishery and implement a progra socially and biologically acceptable.
			Rainbow trout Brown trout Mountain whitefish Channel catfish Smallmouth bass Largemouth bass Yellow perch	General	
Lower Salmon Falls Reservoir	7/840	Mixed	Rainbow trout Largemouth bass Channel catfish Bluegill	General	Continue annual rainbow trout stockings in the Bell Rapids area. Con use of other strains or species. Study feasibility and stock if studies s indicate. Investigate causes of loss of aquatic vegetation which provic habitat.
Upper Salmon Falls Reservoir	5/810	Mixed	Rainbow trout Largemouth bass Smallmouth bass Channel catfish	General	Investigate potential for improving fishery stocking fingerling and catch trout.

Backwaters of Upper Salmon Falls Reservoir to Shoshone Falls, also flowing water between upper and lower Salmon Falls dams	30.4/	Mixed	Sturgeon Rainbow trout Brown trout Mountain whitefish Channel catfish Largemouth bass Smallmouth bass Yellow perch	Conservation General	Maintain no harvest regulation on sturgeon. Do not stock sturgeon during thi planning period while evaluating previous releases. Maintain Dolman Rapids as large-size trout water. Strongly oppose propose hydropower projects, which may jeopardize fisheries. Investigate potential fo improving trout fishery with fingerling plants. Stock channel catfish to improv warmwater opportunities. Improve access. Work to improve summer flows.
Shoshone Falls Reservoir	1.2/60	Mixed	Rainbow trout Smallmouth bass	General	Investigate potential of catchable rainbow trout to provide fishery in high turn reservoir. Consider stocking smallmouth bass.
Backwaters of Shoshone Falls Reservoir to Twin Falls Dam	1/	Mixed	Rainbow trout Smallmouth bass	General	Manage as a yield fishery with approximate catch rate of 0.5 fish/hour. Inves need to supplement smallmouth bass.
Twin Falls Reservoir	1/96	Coldwater	Cutthroat trout Rainbow trout Rainbow trout x cutthroat trout hybrids	General	Emphasize protection of native cutthroat trout and rainbow trout x cutthroat tr hybrid populations. Oppose any project, which would increase size of reserv Manage as a unit with reach upstream to Murtaugh Bridge.
Backwaters of Twin Falls Reservoir to Murtaugh Bridge	11.6/	Coldwater	Cutthroat trout Rainbow trout x cutthroat trout hybrids Rainbow trout	General	Stock fingerling cutthroat trout if necessary to improve recruitment. Emphasi maintenance of trophy fishery. Evaluate potential for improved trout manage with special regulations. Evaluate potential for developing smallmouth bass Work to improve summer flows.
Murtaugh Bridge to Milner Dam	8.5/	Coldwater	Cutthroat trout Rainbow trout Smallmouth bass	General	Work on improving habitat through improved flow management. Evaluate po for spawning in Dry Creek. Determine need for hatchery program in IPC byp reach.
Milner Reservoir	22/3,000	Warmwater	Smallmouth bass Largemouth bass Yellow perch Brown bullhead Channel catfish	General	Emphasize establishment of self-sustaining warmwater fish species. Continu stockings of channel or blue catfish. Improve warmwater fish habitat by plac cover structures on reservoir bottom.
Backwaters of Milner Reservoir to Minidoka Dam	15/	Coldwater	Cutthroat trout Rainbow trout Smallmouth bass	General	Use fingerling program to improve recruitment. Stocking in Lake Walcott ma to be increased to improve downstream fishery. Maintain catch rate of 0.5 fis Work to improve flow management.
Lake Walcott (Minidoka Reservoir)	29/11,850	Mixed	Rainbow trout Cutthroat trout Yellow perch Brown bullhead Smallmouth bass	General	Stock subcatchable or catchable rainbow trout on an annual basis. Monitor b and trout populations and adjust management direction to conform with findir

			Largemouth bass		

Billingsley Creek from mouth to Tupper Grade Crossing	5.5/	Coldwater	Rainbow trout Brown trout	General	Evaluate annual stocking of brown trout fry. Oppose impacts of any future commercial fish rearing operations. Place necessary requirements on any pr hydropower projects to protect fisheries and wildlife values. Maintain catch r approximately 0.5 trout/hour.
Billingsley Creek from Tupper Grade Crossing to Vader Grade	2.5/	Coldwater	Rainbow trout Brown trout	Trophy	Manage as high-quality trophy fishery. Maintain catch rate of approximately trout/hour. Fly fishing only as condition of free public access.
Billingsley Creek from Vader Grade Crossing to headwaters	1/	Coldwater	Rainbow trout	Wild	Maintain catch rate of approximately 1.0 trout/hour.
Riley Creek	2.5/	Coldwater	Rainbow trout	Wild	Maintain wild trout populations between state and national hatcheries with m harvest to reduce disease potentials at hatchery. Manage lower portion in conjunction with other WMA waters.
Deep Creek, mouth to Twin Falls Highline Canal	16/	Coldwater	Rainbow trout	General	Manage as yield fishery. Maintain satisfactory instream flow.
Mud Creek	8/	Coldwater	Rainbow trout	General	Maintain adequate minimum instream flows.
Cedar Draw Creek from mouth to Twin Falls Highline Canal	12/	Coldwater	Rainbow trout Brown trout	General	Continue assistance with state, federal, and private personnel on clean wate on stream. Maintain adequate minimum instream flows and other environme protection at hydro sites and fish hatcheries.
Cedar Draw Creek from Highline Canal to headwaters	2/	Coldwater	Rainbow trout Brown trout	General	Continue assistance on ongoing clean water project.
All other streams in drainage except Salmon Falls, Rock, and Goose creeks and Raft River and north side springs drainages	166/	Mixed	Rainbow trout Cutthroat trout Rainbow trout x cutthroat trout hybrid Brown trout Smallmouth bass Largemouth bass Bluegill	General	Manage for yield fishery. Work with public and private land managers on im stream habitat for reproducing populations of trout.

Bruneau Sand Dunes lakes	/100	Warmwater	Largemouth bass Bluegill	Trophy General	Evaluate trophy bass rule and adjust as needed to maintain trophy fishery. Cooperate with State Parks in promoting fishery. Maintain water levels with pumping program. Monitor and control carp populations.
Blair Trail Diversion Reservoir	/15	Mixed	Rainbow trout Bluegill	Put-and-take trout General	Put-and-take fishery. Consider stocking smallmouth bass.
Morrow Reservoir	/60	Warmwater	Largemouth bass Bluegill Brown bullhead Black crappie	General	Manage as yield fishery.
Pioneer (Clover Creek) Reservoir	/220	Warmwater	Tiger muskie Largemouth bass Bluegill Bullhead	General	Rotenone reservoir and portions of tributaries to eliminate extremely high car populations. Use drawdown to manage bluegill populations. Consider introc tiger muskie. Develop boat access. Investigate methods to increase capaci
Bray Lake	/204	Mixed	Rainbow trout	General	Work with landowners to acquire minimum reservoir level. Stock sterile rainb trout. Introduce forage such as redside shiner. Evaluate potential for trophy
Frank Oster lakes, and Riley Creek impoundments	/30	Mixed	Rainbow trout Largemouth bass Bluegill	General General	No motors water. Maintain catch rate of 0.7 fish/hour with catchable rainbow No motors water.
All other lakes and ponds on the Hagerman Wildlife Management Area	/35	Mixed	Rainbow trout Largemouth bass Bluegill Channel catfish	Put-and-take trout General	No motors water. Continue dredging operation to improve habitat in coopera with land management personnel. Maintain catch rate of approximately 0.5 fish/hour. Continue dredging operations to improve habitat. Improve bluegill spawning No motors water. Maintain July 1 opener. Consider West Highway Pond for improved water quality and trophy bass.
Niagara Springs Wildlife Management Area ponds	/8	Coldwater	Rainbow trout	Wild	Maintain trophy fishing opportunity. Manage for catch rates of 1.0 fish/hour.
Crystal Lake	/8	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take for 1.0 fish/hour catch rate. Continue cooperative program with Springs Trout Company to stock fish.

Scott Pond	/1	Coldwater	Rainbow trout	Put-and-take trout	Stock catchable rainbow trout on an annual basis. Enlarge existing pond are trout if funds are available.
Dierkes Lake	/100	Mixed	Rainbow trout Largemouth bass Bluegill Smallmouth bass	Put-and-take trout Trophy General	Put-and-take for rainbow trout. Work to improve bass/bluegill fishery. Consider smallmouth bass introductio Monitor trophy bass regulation to improve bluegill population structure.
Murtaugh Reservoir	/827	Warmwater	Channel catfish Yellow perch Brown bullhead	General	Low winter pool limits fishery potential.
Wilson Lake	/484	Warmwater	Brown bullhead Yellow perch Channel catfish Largemouth bass	General	Experimentally stock channel and/or blue catfish in lake periodically and eval Continue to emphasize high quality bullhead angling in the lake. Consider ot introductions, including tiger muskie, smallmouth bass, and bluegill.
Emerald Lake	/30	Mixed	Rainbow trout Channel catfish Largemouth bass Bluegill	Put-and-take trout General	Stock regularly with hatchery rainbow trout as needed to maintain catch rate approximately 0.7 fish/hour. Investigate methods of controlling avian predat
Freedom Park Pond	/1	Coldwater	Rainbow trout	Put-and-take trout	Put-and-take fishery for rainbow trout. Consider establishing as a juvenile-or water.
Thousand Springs Nature Conservancy Area	2/	Coldwater	Rainbow trout	Wild	Preserve unique aesthetic qualities of area. Manage for native wild trout and preserve Shoshone sculpin.
Box Canyon Springs	1.2/	Coldwater	Rainbow trout	Wild	Preserve unique aesthetic qualities of stream and fish species. Maintain ade instream flow for aquatic life and riparian habitat. Maintain very high standar protection of stream environment. Work with Idaho Parks and Recreation to development low impact public use opportunities. Manage on a wild trout ba to preserve Shoshone sculpin.
Banbury Springs	0.2/	Coldwater	Rainbow trout	Wild	Preserve unique aesthetic qualities of area and oppose development, which adversely impact area. Manage on a wild trout basis, with approximate catch 1.0 fish/hour. Maintain adequate instream flow in all stream channels. Prese Shoshone sculpin.
All other aquifer spring in Gooding County	10/	Coldwater	Rainbow trout	General	Manage as yield fishery. Maintain catch rate of approximately 1.0 fish/hour. Preserve quality of undeveloped aquifer springs.
Devil's Corral Springs	1/	Coldwater	Rainbow trout	Wild	Preserve aesthetic qualities of area.

Vinyard Creek	0.5/	Coldwater	Cutthroat trout Rainbow trout Rainbow trout x cutthroat trout hybrids	Wild	Preserve aesthetic qualities of area. Strongly oppose any development of tra area. Protect unique population of cutthroat trout and hybrid trout, which spa rear in stream. Strongly oppose any project, which would raise height of Twi Dam and inundate Vinyard Creek. Manage for 1.0 fish/hour; change regulati necessary.
All other aquifer springs in Jerome County	0.2/	Coldwater	Rainbow trout	Wild	Manage as yield fishery. Maintain water quality and spawning and rearing ac